Science On a Sphere - 5.2 Release Notes

Version 5.2.0

April 6, 2017

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Introduction

This document summarizes the changes and additions to the Science On a Sphere® (SOS) main software in the version 5.2 release.

For detailed information on SOS display features, please refer to the SOS Display Software Manual (or browse to: *Support > Manuals > Display Software* on the SOS website).

Release Date

- Version 5.2.0 - April 6, 2017

Release Highlights

- New Text PIPs feature that allows beautiful and highly flexible display of text on the sphere using a large set of fonts, colors, and language support.
- Many improvements and fixes in Visual Playlist Editor, including creation of Text PIPs, formatted dataset information, and translation support for the SOS data catalog.
- New functionality in the SOS Remote App for Apple iOS, including individual display controls for PIPs and new projector alignment options.
- A new graphical utility for controlling and reporting status of SOS projectors.
- Enhanced documentation under the Support section of the SOS website, including more consistent formatting and printable PDFs available for the SOS manuals and guides. (coming soon!)

Requirements (Please Read!)

- Like the previous 5.1 version, SOS 5.2 requires your SOS computers to be running **Ubuntu 16.04 LTS**. If you are already running SOS 5.1, you already have the operating system you need and you will only need to install SOS 5.2 on your SOS systems.
- However, if you are running SOS 5.0 or earlier, your systems have Ubuntu 12.04 LTS, which is no longer being maintained or updated. You will need to install Ubuntu 16.04 LTS before you install SOS 5.2.
  - If you are reinstalling Ubuntu, we strongly recommended that you reinstall your backup SOS machine (typically called SOS2) first with Ubuntu 16.04 and then SOS 5.2. This process requires a full wiping of the SOS computer's disk, including user home directories, data files, and presentations. Because this is a major operating system change, you should verify that everything is working well on SOS2 after the upgrade at your site before reinstalling your primary machine (typically called SOS1).
  - Do NOT upgrade your SOS computer to Ubuntu 14.04 LTS, even if prompted. The SOS software will not work with this version of Ubuntu.
  - A detailed set of directions for the installation of Ubuntu 16.04 and SOS 5.2 are available in the document entitled: Upgrade Instructions for Ubuntu 12.04 & SOS 5.0 to Ubuntu 16.04 & SOS 5.2. Please read that guide thoroughly before you begin!
  - We are happy to assist you in your SOS 5.2 installation (just email our support team at sos.gsd@noaa.gov).

Product Component Enhancements

The 5.2 release includes new features, enhancements, and fixes in applications across the SOS application

suite. Each of the following have links to their own 5.2 Release Notes and updated documentation as indicated:

- SOS Remote App ("SOS App"): see the SOS Remote App Manual (or browse to: *Support > Manuals > SOS Remote App* on the SOS website).
- NOAA SOS Public Kiosk ("Kiosk"): see the Public Kiosk Manual (or browse to: *Support > Manuals > Public Kiosk* on the SOS website).
- Visual Playlist Editor ("VPLE"): see the Visual Playlist Editor Manual (or browse to: *Support > Manuals > Visual Playlist Editor* on the SOS website).

New Features, Enhancements, and Fixes

Installation

- Improved build and modular packaging of SOS software in Debian packages, downloaded and installed with standard Ubuntu Linux tools
- Improved desktop wallpaper featuring with the brand new SOS graphic and application icons
- Fixes to address incorrect error messages, issues with permissions, FTP, and crontab, adding new config file options

Main SOS Program

- Expanded capabilities to set individual PIP names, visibilities, and opacities, in both playlists and with the SOS automation control protocol (used by the SOS Remote App).
- Support for Text PIPs that are defined using HTML and drawn on the sphere using the Freetype-GL library, with autoscaled font sizes based on graphics resolution. Capabilities include a choice of colors, font styles (italics, bold, underline), background colors, opacites, and support for many languages such as Chinese and Spanish.
- Enhancement to identify which layers are overlays so they can be grouped together in the SOS Remote App
- Fix for pipnames with blanks hanging SOS by replacing the blanks with underscore characters.

Alignment

- Auto Alignment color matching and image recognition has been greatly improved, yielding faster and better alignments. Auto alignment is no longer experimental and is now a regular alignment feature in SOS *(using extra equipment that must be purchased).*
- New capability to reset vertex tweaking changes without undoing red ball and grid alignment settings. This may be done for an individual projector or for all four at once.

Utilities

- New graphical projector control application, including better reporting and handling of IP address problems, support for Sony 4K projectors using PJTalk as well as many others that use PJLink.
- The translations utility (translations2db) now works with symbolically linked directories
- Version reporting errors in usage statistics version were fixed

Backward Compatibility Considerations

For best results, we strongly encourage you to update all your SOS software applications at the same time to version 5.2.0, including the Visual Playlist Editor, SOS Remote App, and Public Kiosk. To assist you in planning your SOS software upgrades, you can visit the SOS Product Suite page on the SOS website.

Where possible, individual SOS 5.2 software components have been updated so that they will continue

working with SOS versions 5.1, 5.0 and 4.3, recognizing there may be some limitations. Components older than 4.3 are incompatible with version 5.2, so you will need to do a full update of all the SOS software applications to version 5.2.

SOS Remote App ("SOS App")

- SOS App 5.2 should work well with SOS 5.1 and 5.0.
- SOS App 5.2 may work with SOS 4.3, but has not been extensively tested.
    - There are some incompatibilities in the SOS Data Catalog, for example. Dataset variations (such as Blue Marble with audio) will not show up in the Data Catalog on the iPad. However, they can still be displayed on the sphere if they are already in presentation playlists.
    - The Splitter tool, Text PIPs, and individual PIP controls are not supported.
- SOS App 5.0 and 5.1 should work with SOS 5.2, but has not been tested.
- SOS App 4.3 may work with SOS 5.2, but is inadvisable and has not been tested. The following limitations were documented previously when testing SOS App v4.3.1 with SOS 5.0.0:
    - Transferring the Data Catalog from the SOS machine to the iPad may timeout and fail to complete. This would prevent any new updates to the Data Catalog from being loaded onto the iPad.
    - The iPad would still display presentation playlists on the sphere.

NOAA Kiosk ("Kiosk")

- Kiosk 5.2 should work with SOS 5.1, 5.0 and SOS 4.3
    - Note that you will cannot customize datasets and groups in the Kiosk using the media2kiosk in SOS 5.0 or 4.3. However, the default kiosk configuration should work okay.
- Kiosk 5.1 and 5.0 may work with SOS 5.2, but has not been tested.

Visual Playlist Editor ("VPLE")

- VPLE 5.2 presentation and dataset output should run fine in SOS 5.1 and earlier, but has not been tested. Text PIPs may be created in VPLE 5.2 but cannot be displayed using SOS 5.1 or earlier versions.
- VPLE 5.1 and 5.0 will be replaced automatically when installing SOS 5.2, so backward compatibility will not be an issue.